

## STENT RANGE TRANSDUCERS AND METHODS OF USE

### ABSTRACT OF THE DISCLOSURE

The present invention provides exemplary apparatus, systems and methods for accurately delivering and positioning a stent within a body lumen, particularly within a  
5 bifurcated body lumen. In one embodiment, a stent delivery system (100) includes a catheter (15) comprising a catheter body having a distal end, a proximal end, a longitudinal axis (200) and a lumen. An expansion device, which in one embodiment is a balloon (20), is disposed near the catheter body distal end, and a stent (10) having a side hole (12) is disposed over the expansion device. An ultrasound transducer (22) is disposed near the catheter body distal end  
10 and positioned for transmitting and receiving ultrasound signals through the side hole to help properly align the stent side hole with a branch vessel (16).

15 DE 7023646 v1